

AMENDMENTS

In the Claims:

1.-8. (Canceled)

9. (Currently Amended) A process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder, comprising:

allowing a precipitate containing Sm and Fe to co-precipitate from a solution in which Sm and Fe are dissolved;

calcining the precipitate to form a metal oxide;

mixing the metal oxide powder with a metal reducing agent;

reducing and diffusing the metal oxide mixed with the metal reducing agent into Sm-Fe alloy powder; and

nitriding the Sm-Fe alloy powder to obtain said Sm-Fe-N based alloy powder,

wherein said Sm-Fe-N based alloy powder has a particle shape of an average degree of roundness of not less than 85%.

10. (Currently Amended) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9, wherein said ~~precipitate has a particle shape of an average degree of roundness of not less than 80%, and said Sm and Fe are~~ uniformly distributed in each particle.

11. (Previously Presented) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9, further comprising heating said metal oxide formed by calcining the precipitate at a temperature in a range from 300 to 900°C in a reducing gas to preliminarily reduce all or part of the iron oxide into metal iron before said reducing and diffusing the resulting metal oxide powder into Sm-Fe alloy powder.

12. (Withdrawn) A process of producing Sm-Fe-N based alloy powder, the process comprising:

heating mixed powder containing Sm_2O_3 having an average particle size of less than 5 μm and an iron oxide having an average particle size of less than 2 μm at a temperature in a

range of 300 to 900°C in a reducing gas to preliminarily reducing all or part of the iron oxide is preliminarily into metal iron; and

subjecting to the reduction-diffusion step the mixture of the preliminarily reduced powder with metal Ca or calcium hydride CaH.

13. (Canceled)

14. (Previously Presented) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9, wherein said Sm-Fe-N based alloy powder has a particle shape of an average degree of roundness of not less than 90%.

15. (Currently Amended) ~~The A~~ process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder ~~according to claim 9, comprising:~~

allowing a precipitate containing Sm and Fe to co-precipitate from a solution in which Sm and Fe are dissolved;

calcining the precipitate to form a metal oxide;

mixing the metal oxide with a metal reducing agent;

reducing and diffusing the metal oxide mixed with the metal reducing agent into Sm-Fe alloy powder; and

nitriding the Sm-Fe alloy powder to obtain said Sm-Fe-N based alloy powder,

wherein said Sm-Fe-N based alloy powder has an average particle size of 0.6 to 10 µm and a particle shape having an average degree of needle shape of not less than 80%.

16. (Currently Amended) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9 15, wherein said Sm-Fe-N based alloy powder has an average particle size of 0.7 to 4 µm and a particle shape having an average degree of needle shape of not less than 85%.

17. (Currently Amended) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9 15, wherein said Sm-Fe-N based alloy powder has an average particle size of 0.7 to 4 µm and a particle shape having an average degree of needle shape of not less than 90%.

18. (Currently Amended) ~~The A~~ process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder ~~according to claim 9, comprising:~~

allowing a precipitate containing Sm and Fe to co-precipitate from a solution in which Sm and Fe are dissolved;

calcining the precipitate to form a metal oxide;

mixing the metal oxide with a metal reducing agent;

reducing and diffusing the metal oxide mixed with the metal reducing agent into Sm-Fe alloy powder; and

nitriding the Sm-Fe alloy powder to obtain said Sm-Fe-N based alloy powder,

wherein said Sm-Fe-N based alloy powder has an average particle size of 0.6 to 10 μm , a particle shape having an average degree of needle shape of not less than 80%, a coercive force of not less than 12.5 kOe and a residual magnetization of not less than 100 emu/g.

19. (Currently Amended) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9 18, wherein said Sm-Fe-N based alloy powder has an average particle size of 0.7 to 4 μm , a particle shape having an average degree of needle shape of not less than 85%, a coercive force of not less than 15 kOe and a residual magnetization of not less than 125 emu/g.

20. (Currently Amended) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9 18, wherein said Sm-Fe-N based alloy powder has an average particle size of 0.7 to 4 μm , a particle shape having an average degree of needle shape of not less than 90%, a coercive force of not less than 17 kOe and a residual magnetization of not less than 130 emu/g.

21. (Previously Presented) The process for producing a permanent magnet material comprising Sm-Fe-N based alloy powder according to claim 9, wherein the metal reducing agent is metallic Ca or calcium hydride.